

VET
SF
756
.36
N72
C65
1881/82

R-226

LIBRARY
New York State Veterinary College
ITHACA, NEW YORK

Columbia Veterinary College and School of Compara-
tive Medicine, New York.

Annual catalogue and announcement,
1881/1882
New York,

v. 24cm.

VET
SF
756
.36
N72
C65
1881/82

CORNELL UNIVERSITY LIBRARY



3 1924 094 628 348

CORNELL UNIVERSITY

THE

Flower Veterinary Library

FOUNDED BY

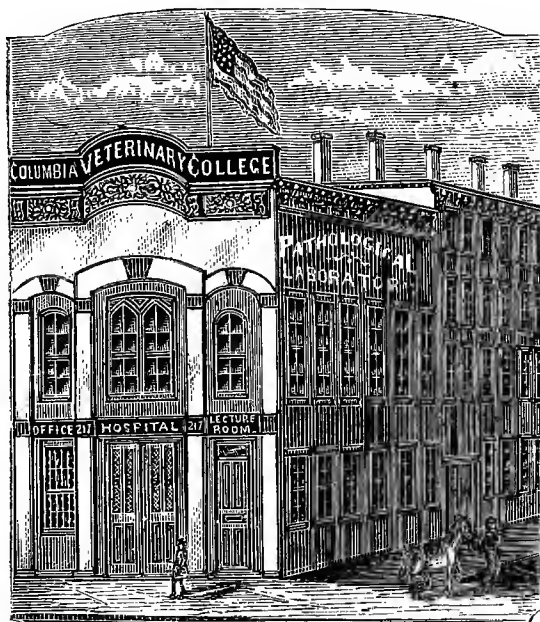
ROSWELL P. FLOWER

for the use of the

N. Y. STATE VETERINARY COLLEGE

1897

Columbia Veterinary College



— AND —

SCHOOL OF COMPARATIVE MEDICINE,

217 EAST THIRTY-FOURTH STREET, NEW YORK.

W. L. HYDE & Co., PRINTERS AND PUBLISHERS, 22 UNION SQUARE.
1881.

SF
 736
 36
 N72
 C65
 1881/82

UNIVERSITY OF THE STATE OF NEW YORK.

BOARD OF REGENTS.

ERASTUS C. BENEDICT, LL.D., *Chancellor.*
 HENRY R. PIERSON, LL.D., *Vice Chancellor.*
 SAMUEL B. WOOLWORTH, LL.D., *Honorary Secretary.*
 DAVID MURRAY, LL.D., *Secretary.*
 DANIEL J. PRATT, Ph.D., *Assistant Secretary.*

ALONZO B. CORNELL, <i>Governor</i>	} <i>Ex officio.</i>
GEO. G. HOSKINS, <i>Lieutenant-Governor</i>	
JOSEPH B. CARR, <i>Secretary of State</i>	
NEIL GILMOUR, <i>Superintendent of Public Instruction.</i>	

GEO. W. CLINTON, LL.D.....	Buffalo.
LORENZO BURROWS.....	Albion.
ROBERT S. HALE, LL.D.....	Elizabethtown.
ELIAS W. LEAVENWORTH, LL.D.....	Syracuse.
J. CARSON BREVOORT, LL.D.....	Brooklyn.
GEO. W. CURTIS, LL.D.....	West New Brighton.
FRANCIS KERNAN, LL.D.....	Utica.
JOHN L. LEWIS.....	Pen Yan.
MARTIN I. TOWNSEND, LL.D.....	Troy.
ANSON J. UPSON, D.D.....	Albany.
WILLIAM L. BOSTWICK.....	Ithaca.
CHAUNCEY M. DEPEW.....	New York.
CHARLES E. FITCH.....	Rochester.
ORRIS H. WARREN, D.D.....	Syracuse.
LESLIE W. RUSSELL.....	Canton.
WHITELAW REID.....	New York.
CHARLES E. SMITH.....	Albany.

ANNUAL CATALOGUE

AND

ANNOUNCEMENT

OF THE

Columbia Veterinary College,

AND

SCHOOL OF COMPARATIVE MEDICINE,

NEW YORK.

1881-1882.

NO. 217 EAST THIRTY-FOURTH STREET.

NEW YORK:

W. L. HYDE & CO., PRINTERS, 22 UNION SQUARE.

1881.

Nov. 28, 1951
Gift of C. H. L. collection
of regional history.

SF
777.
A4
C72
1881/82

COLUMBIA VETERINARY COLLEGE.

OFFICERS.

President,

ALEXANDER HADDEN, M. D.

Dean,

ERSKINE S. BATES, M. D., V. S.

Treasurer,

LOUIS H. LAUDY, PH.D., D. V. S.

Curator of Museum,

W. H. PORTER, M. D., V. S.

Hospital Surgeon,

FRANK WALTON, D. V. S.

Clerk,

JOHN C. WALLACE, JR., D. V. S.

Trustees.

ALEXANDER HADDEN, M. D.,
 THOS. S. VAN VOLKENBERG,
 Ex-Gov. HORATIO SEYMOUR,
 WILLIAM A. CONKLIN, D. V. S.,
 WARREN SCHOONOVER, M. D.,
 THEOBOLD FROHWEIN, Ph.D.
 J. SMITH COATES,
 FRANK WORK,
 J. PAYNE LOWE,
 THOS. DEVOE.

Councillors.

JAMES R. WOOD, M. D.,
 NATHAN BOZEMAN, M. D.,
 STEPHEN SMITH, M. D.,
 FREDERICK H. CASTLE, M. D.,
 DANIEL F. LEAVITT, M. D.,
 W. A. WARREN, M. D., V. S.,
 NOAH CRESSY, M. D., V. S.,
 JOHN CUFF, D. V. S.,
 JOHN N. NAVIN, V. S.

Censors.

WM. A. HAMMOND, M. D.,
 ANDREW H. SMITH, M. D.,
 WESLEY M. CARPENTER, M. D.

FACULTY.

PROFESSORS AND LECTURERS.

ERSKINE S. BATES, M. D., V. S., *Professor of General Theory and Practice, Therapeutics and Materia Medica.*

LOUIS H. LAUDY, Ph.D., *Professor of Chemistry.*

WILLIAM H. PORTER, M. D., V. S., *Professor of General Surgery.*

THOMAS E. SATTERTHWAITE, M. D., *Lecturer on General Pathology and Helminthology, and Microscopy.*

EDMUND C. WENDT, M. D., *Professor of Comparative Anatomy, Histology, &c.*

W. O. MOORE, M. D., V. S., *Professor of Veterinary Ophthalmology.*

ALLEN S. HEATH, M. D., *Professor of Cattle Practice, and the History, Breeding and Management of Domestic Animals.*

GEORGE H. BERNIS, D. V. S., *Lecturer on Equine Practice, Diseases of the Feet, &c.*

FREDERICK J. WILSON, D. V. S., *Lecturer on Clinical Surgery.*

JOHN F. MUSTOE, D. V. S., *Clinical Assistant.*

THEOBOLD FROHWEIN, Ph.D., *Professor of Practical Pharmacy.*

G. H. GUNNING, M. D., *Lecturer on Obstetrics.*

E. BENJ. RAMSDALL, M. D., *Lecturer on Chemistry and Physical Diagnosis.*

WILLIAM H. NEUSCHAFER, *Jurisprudence of Veterinary Medicine.*

FRANK WALTON, D. V. S., *Lecturer on Equine Anatomy.*

N. F. THOMPSON, D. V. S., *Demonstrator of Anatomy.*

EDWARD A. MACLELLAN, *Lecturer on Practical Shoeing.*

MATRICULANTS.

GRADUATES.

John Cuff, D.V.S.,New York.
 Charles L. Hardin, D.V.S., " "
 Eli Judson Peck, D.V.S., " "
 David W. Cochran, D.V.S., " "
 Samuel A. Darling, D.V.S., " "
 John Campbell Wallace, D.V.S., " "
 Henry E. Earl, M.D., D.V.S., Staten Is.
 Henry S. Vanderhoff, M.D., D.V.S.,
 Brooklyn.
 James Hamill, D.V.S.,New York.
 Emile N.C. Suvale, D.V.S., New Jersey
 Charles D. House, D.V.S., New York.
 Mark Lewis Frey, D.V.S., " "
 George H. Berns, D.V.S.,Brooklyn.
 Charles Dunne, D.V.S.,New York.
 John Lindsay, D.V.S.,Long Island.

George H. Parkinson, D.V.S.,Conn.
 John Alex. Mc Laughlin, D.V.S.,
 New Jersey.
 John H. Dancer, D.V.S., " "
 John Frederick Mustoe, D.V.S.,
 Williamsburg.
 Theodore Simon, D.V.S.,New York.
 Charles A. Meyer, D.V.S., " "
 Wm. A. Conklin, D.V.S., " "
 Nathaniel Foote Thompson, D.V.S.,
 New York..
 Frank Walton, D.V.S., " "
 Manly Miles, D.V.S., " "
 Frederick J. Wilson, D.V.S., Brook-
 lyn, E. D.
 Manley Miles, D.V.S.,New York.

MATRICULATED CLASS, 1880-1881.

George H. Parkinson,Conn.
 John Richard EschbachMaryland
 James Carr,New Jersey.
 Charles Dunne,New York.
 John H. Dancer,New Jersey.
 Mark L. Frey,New York.
 G. M. Hoover,Virginia.
 A. J. Mitchell,New Jersey.
 Allan B. Marsh,Conn.
 Louis Marx,New York.
 E. Judson Peck,New York.
 William Soula,Rhode Island.
 Flavius Josephus Smith,Tennessee.
 Emile N. C. Suvale,New Jersey.
 John Campbell Wallace, Jr. New York.
 Henry S. Vanderhoff, M.D., New York.
 Abijah Beardsley,Conn.
 Raymond C. Minor,Virginia.
 Henry W. Briggs,Mississippi.
 Frederic Frobisher,New York.
 Peter Martin,Massachusetts.

Philip MarkhamNew York.
 Henry M. Hewitt,Illinois.
 Ludwig Klein,Pennsylvania.
 Simon French,Vermont.
 George L. Travers,New York.
 George Dawson,New York..
 Edwin M. Fitzgerald,New York.
 Edward W. Douglass,Brooklyn.
 George F. Bowers,Brooklyn.
 David Johnston,New York.
 Philip Newman,Brooklyn.
 Edward A. MacLellan,Conn.
 Henry W. Tolles,New Hampshire.
 Henry Benton,Long Island.
 Charles Hewitt,New York.
 J. W. Hawk,New Jersey.
 Hugo L. Rammacciotti,Australia.
 Edward S. Breeder,New York.
 Ebenezer Waters,Brooklyn.
 Edward F. Dowd,New York.
 Theodore Simon,New York.

PRIZES.

All prizes are awarded publicly at the College Commencement.

THE GOLD MEDAL.

This prize is open for competition to all members of the Senior Class, and awarded to the student showing the highest proficiency on the general final examination.

THE SILVER MEDAL.

This prize is open for competition to all members of the Junior Class, and awarded for highest excellence on written examination.

THE SHOEING PRIZE.

Silver Medal. Open for general competition, and awarded to the student making the best written report of the lectures on the Science of Shoeing.

THE ANATOMICAL PRIZE.

A Case of Instruments, offered by John Cuff, D. V. S. Awarded to the student preparing the best anatomical preparation for the College Museum.

PATHOLOGICAL PRIZE.

Set of Dental Instruments, offered by Charles D. House, D. V. S. Awarded to the student preparing the best pathological specimen for the College Museum.

JURISPRUDENCE PRIZE.

Offered by Wm. H. Newschafer, Esq., for most marked diligence and constant attendance on lectures during term.

SUCCESSFUL COMPETITORS.

Gold Medal	George H. Parkinson, D. V. S.
Honorable Mention	Mark L. Frey, D. V. S.; H. S. Vanderhoff, M. D., D. V. S.
Silver Medal	Edward A. MacLellan.
Honorable Mention	George F. Bowers, Edward F. Dowd.
Anatomical Prize	E. Judson Peck, D. V. S.
Pathological Prize	George H. Parkinson, D. V. S.
Jurisprudence Prize	John Lindsey, D. V. S.
Shoeing Prize	

ANNOUNCEMENT.

Hon. Geo. B. Loring, United States Commissioner of Agriculture, in his recent address before the Alumni and graduates of Columbia Veterinary College, says: "The modern attempt to elevate veterinary science above the mere empiricism which characterized it *universally* before the beginning of the present century, and which characterizes it too extensively now, is entitled to *profound* gratitude and liberal encouragement, on the score both of economy and humanity. Dedicated, as Columbia Veterinary College is, to the development and care and preservation of all that portion of the animal kingdom which man has subdued, and devoted to his prosperity and comfort, and which constitutes more than \$1,500,000,000 of his property in this country alone, it deserves the support of all who are engaged in the practical affairs of life, and the sympathy and encouragement of all who would ameliorate the physical suffering which man forces his dumb allies to share with him in the warfare of life.

"Every humane master who regards his horse and his dog with a kindly eye, every wise and affectionate father who knows the value of healthful food to his family, every lover of a wide-spread and generous prosperity for man and beast, cannot set too high a value upon the effort to establish, develop, and apply the best theory and practice of veterinary science, and to furnish the healing art in all its best forms to the dumb animals upon whom we so constantly depend.

"No dumb creature has yet told the long tale of agony growing out of the rude surgery which has been applied to the race of his generation. The loss of property arising from bad management, exposure to poisonous gases, supply of bad food, insufficient care, brutal abuse, and unskilled medication, can hardly be calculated.

"The State and National Councils of this country are engaged at this very hour in devising means by which destructive epidemics, which destroy our herds, can be stayed, and finally removed, and the *great want*, as I well know, is a *corps of well-educated, practical veterinary surgeons, skilled in the treatment of disease and laws of health, capable of defining how much is disease and how much popular panic*,

wise to advise the most economical methods of curing, or of isolation and extirpation, scattered through the land, to tell us where the plagues exist, and how to control and remove them."

All who have the prosperity of the country at heart, and who realize the full value of the great industries with which our animals are connected, will appreciate and re-echo the foregoing sentiments. Columbia Veterinary College is one of the pioneers in veterinary education in this country. It is the constant aim of its Trustees and Faculty to extend and elevate the practice of comparative medicine. The college organization is very complete, and the facilities and advantages greatly enlarged for the accomplishment of the work to which it is dedicated.

At present it affords unsurpassed opportunities for obtaining a complete veterinary medical education, and it is the purpose of its Faculty to make it the most *thorough, practical and progressive* veterinary school in the country.

The present organization of the school embraces fifteen teachers, men of extensive observation and experience in the several departments to which they are assigned; they are thus able to unite the theoretical and scientific with the positive and practical, making the lecture course complete in all the departments of medicine

The course of study is strictly parallel with the most advanced institutions of learning, and includes all the collateral subjects taught in human medical schools. As far as practicable, a *specialist* is placed at the head of each department so that each subject is as thoroughly taught as its importance demands. Equine, bovine, porcine and canine diseases each receives due attention.

In the plan of instruction adopted, *didactic* teaching is considered of the first and most essential importance, although *clinical* teaching occupies a *prominent* and important position. The practical subjects presented in the didactic course are fully illustrated in the various infirmaries to which the professors and students have access. Arrangements are such that all the clinical cases can be seen and studied by the class, and the student is thus brought face to face with the problems and difficulties which present themselves in practice. By these methods, the student is led to make closer observations and attain greater skill in diagnosis. He becomes expert in the various details of surgical art and wise in his therapeutics, so that he enters upon his profes-

sional duties armed with that *perfect knowledge* and confidence in self which always ensures success.

Each year the number of young men who apply for information concerning the college increases. Very many of them have signified their intention of entering at the next session ; others are deterred only by want of means to defray the expense of the course. *Humanitarians* who freely devote their surplus funds for the support of societies for the Prevention of Cruelty to Animals can here find an opportunity not only to *relieve sick and suffering animals*, but to *benefit worthy young men* by *fitting them* for the *perpetual work* of caring for dumb creatures when assailed by disease. *In this connection* we invite particular attention to the terms for a Complete Course. Agricultural societies, humanitarians and others cannot do better than invest the small sum required for this purpose, and create scholarships which will aid the Trustees in carrying on the work.

COLLEGE COURSE.

Instruction in the College is given by lectures, recitations, clinical teaching and practical exercises uniformly distributed throughout the entire academic year.

The next term begins Wednesday, October 5, 1881, and continues six months.

There is a recess of two weeks at Christmas. The course of instruction is sufficiently extensive to require three terms, but by making extra effort every studious, well-qualified student can complete the course in *two years*.

The studies are graded and arranged so as to carry the student progressively and systematically from one subject to another in a just and natural order.

Instead of the customary oral examination for the degree of Doctor of Veterinary Science, held at the end of the course of study, a series of written examinations on all the subjects of instruction is required of all the students through the whole course. Monthly written examinations also are required during the session.

The great value of systematic quizzing in accurately fixing the knowledge gained at the lectures is too apparent to need discussion. Such quizzing takes place almost daily, each professor taking charge of his own department.

DIVISION OF STUDIES.

Comparative Anatomy, Equine, Bovine, Canine, etc.; General Physiology and Animal Physiology; Elemental, Organic and Medical Chemistry; Microscopy, Histology and Pathology; Materia Medica, Pharmacology, Therapeutics, Obstetrics, Theory and Practice of Medicine; Theoretical and Practical Surgery; Clinical Medicine and Surgery; Ophthalmology, Helminthology, Physical Diagnosis, etc.

TEXT BOOKS.

Anatomy,	Chauveau, McBride.
Physiology,	{ Flint, Kirke, Dalton, Foster and Martin's Human Body.
Surgery,	Williams, Gross, Percival.
Histology,	Beale, Schaefer.
Microscopy,	Beale, Frey.
Canine Practice,	Youatt, Hill, Mayhew.
Cattle Practice,	{ Dobson, Clater, Gamgee, Law and Navin.
Materia Medica and Therapeutics,	{ Morton, Bartholow, Dunn, Tuson.
Chemistry,	Draper, Fownes.
Pathology,	Pages, Biloath, Green.
Theory and Practice,	{ Gamgee, Williams, Percival, Law, Tellor, Navin.
Obstetrics,	Fleming.
Ophthalmology,	Wells and Carter.
Comparative Anatomy,	Huxley, Gegenbauer, Owen.
Pharmacy,	Parrish's Pharmacy.
Shoeing,	Fleming, Russell.

For References—Dunglison's Medical Dictionary, U. S. Dispensary, Ringer's Therapeutics, etc.

METHODS OF INSTRUCTION.

The several departments in this institution are taught in accordance with modern normal theories. Lectures and recitations are illustrated by practical demonstrations, as far as possible, on the living animal; and to students of the second and third class, opportunities are given for original investigation. Morbid specimens are shown in a fresh state. Daily clinical instruction is given, and the advanced students are furnished with cases for personal examination and treatment.

PRACTICAL ANATOMY.

During the entire term the study of Practical Anatomy will be systematically pursued. The Professor of Comparative Anatomy and the Demonstrator will have the immediate charge of the dissecting rooms during this period, always under the general direction of the Faculty. The Demonstrator will be in daily attendance, and make frequent demonstrations to the class.

Arrangements have been made by which an ample supply of material will be furnished to the students from the commencement of the dissecting season. The anatomical rooms are spacious and well ventilated, and afford every convenience for the prosecution of the study of Anatomy.

Besides the common domestic subjects, rare animals are frequently sent to the College for the benefit of the anatomical and pathological departments. Among the number of special value we may enumerate :

An Elephant,	Several Cubs,	Chimpanzees,
A Giraffe,	Five Deer,	Ourang-Outang,
One Hippopotamus,	Three Bears,	Monkeys,
Six Antelopes, and various smaller Mammals and Birds.		

Students who so desire may obtain special instruction in the following departments :

SHOEING.

In order to combat in a measure the gross ignorance prevailing on this subject, the Trustees have established a department of shoeing, which will receive the special attention which its importance demands.

A forge, furnished with every appliance and convenience for teaching this branch of veterinary science, will enable the students to become familiar with the subject in a thoroughly practical and scientific manner.

Students who so desire will be received for the purpose of becoming experts in this special branch on very reasonable terms. Veterinarians and others interested in the importance of proper shoeing can avail themselves of the rare opportunity thus offered.

Fee for Special Instruction, \$10.00.

• PATHOLOGICAL LABORATORY.

This department has been fitted up in the Annex building, and will be under the direction of THOMAS E. SATTERTHWAITE, M. D., Pro-

fessor of General Pathology, Morbid Anatomy and Pathological Histology. It will be so arranged and conducted that not only the students of the College, but PHYSICIANS, and others who desire special preparation in general or comparative microscopic technology, and normal and pathological histology, will have every facility afforded for obtaining a thorough knowledge of these subjects. It is suitably furnished with microscopes and all the appliances requisite for practical study and for making original researches.

The Special Course consist of twenty lessons, and the fee is \$10.

This course is given both during the Winter and Spring months.

CHEMISTRY.

The Chemical Apparatus is very complete, and enables the Professor of Chemistry to devote attention to and illustrate subjects like microscopic photography, spectral analysis, and the analysis of animal fluids and poisons. In this department there will be, as heretofore, a complete course on General Chemistry and Toxicology. The lectures are fully illustrated by experiments. In this department also the forces of heat and electricity are fully discussed in their relation to veterinary medicine. The regular course is very full and practical, but students and others can obtain the benefit of a special course, including chemicals and apparatus, on payment of a fee of \$10.

CLINICAL ADVANTAGES.

Large cities, like New York, furnish abundant material for the study of practical anatomy and for clinical observations. In connection with the College, the trustees have established a hospital which is designed for the reception and treatment of all kinds of domestic animals suffering from disease or injury. The hospital department occupies the lower part of the College building, and is open to the students of the junior and senior classes.

There are also numerous private hospitals and infirmaries, which are placed at the disposal of the professors for the purpose of holding clinics. Clinics will be held every week during the session in the Berns, Wilson, Mustoe and Cuff Infirmaries. One clinic weekly will be held in the hospital of the Third Avenue Railroad Stables. In connection with the College, during the lecture term, a public outdoor clinic is held every Saturday afternoon. The large stock yards in various parts of the city furnish the professors with plenty of mate-

rial for illustrations on cattle. Advanced students are detailed to make professional visits with the professors and lecturers on practice and surgery. These facilities afford abundant opportunity for becoming acquainted clinically and practically with general surgery and practice.

DISEASES OF CATTLE, ETC.

In this department all the diseases of the bovine species are lectured upon, and, as far as possible, illustrated on the living subjects in the nearest stock yards.

SPECIAL LECTURES.

Under this head are included Lectures on Veterinary Jurisprudence, Breeding and Management of Animals, External Forms of Horses and Cattle, Sanitary Veterinary Medicine, Ophthalmology, Microscopy, Helminthology, Diseases of the Skin, Parasitic Diseases, Canine Practice, etc.

CLASSIFICATION OF STUDENTS.

Students are divided into classes, according to their time of study and proficiency.

Students who do not intend to offer themselves for a degree will be received for any portion of the course. Any student may obtain *without an examination* a certificate of the period of his connection with the school.

Students who so elect are permitted to try to complete the course in two years. Close application coupled with a good preliminary training enable the majority of students to do this, although there is no doubt that those graduates succeed best who “*make haste slowly*” during their professional training.

CONDITIONS OF ADMISSION.

Every gentleman of good moral character, and possessed at least of a common school education, is admitted to the lectures for the full term on payment of the fees as detailed further on. He is required to attend personally the lectures of his grade, and conform to the College Rules and Regulations. He is admitted to the full privilege of the dissecting room, the laboratories and the hospital department. ¹⁸⁸⁷₁₈₈₈ Students who are able to pass the required examination in the studies of the first year, viz.: Equine and Comparative Anatomy, Physiology, Elemental Chemistry, Materia Medica and Microscopy, are entered as second course students.

EXAMINATIONS.

In the Supplement of this Catalogue will be found a list of questions which were arranged for the written examination of the graduating class of '81. A careful perusal will convey some idea of our methods of instruction as well as illustrate the general scope of knowledge deemed necessary for graduation.

REQUIREMENTS FOR A DEGREE.

Every candidate must be twenty-one years of age, must have attended two courses of medical instructions, the last in this College, must present testimonials of good moral character, and pass the required written, oral and practical examinations on all subjects lectured on in the College course.

Graduates in human medicine are required to attend only one course of lectures.

Graduates of Agricultural Colleges are allowed time on such subjects as have been pursued in their former course.

No diplomas will be awarded till all dues to the College are discharged.

FEES.

Matriculation Fee,	\$ 5 00
Demonstrator's Ticket,	5 00
Tickets for the full course of lectures,	100 00
Total for the full term,	\$110 00

In addition to this, candidates for the diploma are required to pay an examination fee of \$25.00. The examinations for the junior certificate are free.

PERPETUAL TICKET.

Perpetual Ticket,	\$150 00.
-----------------------------	-----------

The fee for the Perpetual Ticket pays for all lecture fees until such time as the student receives his diploma. By taking out this ticket the student gets the benefit of a deduction of fifty dollars on the amount required of those who pay ONE TERM only in advance.

All fees are expected to be paid at the beginning of the regular lecture term.

Through the generosity of one of our well-known citizens, a fund has been placed at the disposal of the Dean of the College for the purpose of

aiding worthy impecunious young men in liquidating a portion of their College fees. Applications for this aid should be made to the Dean, who will give all requisite information.

The Clerk will always have a list of the boarding houses in the vicinity of the College building, and render all needed assistance in obtaining board.

The student's general expenses may be reduced in accordance with his means to the standard which prevails in other cities.

Good board can be obtained in the vicinity of the College at prices varying from \$4 to \$6 per week.

It is advisable for those at a distance who desire attending lectures to make the fact known as early as possible, stating accommodations desired, etc.

Students are requested on their arrival in the city to call at the College, settle with the Dean for the amount of their fees, and register their names with the Clerk of the College.

Letters requiring information should be addressed to the Dean of *Columbia Veterinary College*, 217 East Thirty-Fourth Street, New York.

HOSPITAL DEPARTMENT.

The Hospital established in connection with the College is designed for the purpose of accommodating domestic animals when sick or disabled by injury.

The location is exceedingly central and easily accessible by any of the city railroad lines, no less than nine lines passing within a few blocks. It is well ventilated and kept in good hygienic condition, and supplied with spacious box stalls and other conveniences.

A special department is devoted to use as a Canine Hospital.

The House Surgeon is constantly in the building, patients being admitted at any time, and kept under constant observation.

Outside calls will receive prompt attention from the assistant or visiting surgeons in charge.

FREE CLINICS.

Medical treatment and advice for sick and lame horses can be obtained free of charge, on Wednesdays and Saturdays, from two to three o'clock P. M.

HOSPITAL RATES OR CHARGES.

Hospital Keep per day, for patients suffering with Internal

Diseases, including advice, medicine and fees. \$1 50

Surgical operations according to special nature, from \$2.00 upwards.

Board and attendance for Surgical Patients and for Horses of subscribers. \$1 00

Board and attendance for Dogs, per day, 50

All Hospital Charges to be made before the removal of the patient.

All Surgical Operations or manipulations are to be made at the risk of the owner.

Besides the above, and in accordance with the usual custom, the Trustees of the hospital have opened a subscription list for a limited number of subscribers.

Written Examination of Graduating Class of 1881.

QUESTIONS.

GENERAL COMPARATIVE ANATOMY.

1. Give the meaning of cell, tissue, organ, histology, biology, taxonomy, embryology, protoplasm.
2. What are the characteristics of living matter?
3. Point out the principal differences between the alimentary canal of carnivorous and herbivorous animals.
4. Mention all the openings of the pharynx of the horse.
5. Describe in general terms the heart of mammals.
6. Define fauna, flora, districts of distribution, species, genus, order, class.
7. State the most striking peculiarities of the stomach of the cow.
8. Enumerate the principal folds of peritoneum in the horse.
9. Mention the general characteristics of birds.
10. Which type of animals embraces the lowest, and which the highest forms of life?
11. Give the classes of the artificial system of Linnæus, also Cuvier's types.
12. Mention the openings of the cloaca of birds.
13. Describe the structure of the ovary of mammals.
14. Give the dental formula of the horse, pig, human being.
15. Mention varieties of ganglion cells, nerve-fibres, blood-vessels.
16. Describe the coverings of the spinal cord of the horse.
17. What different kind of glands are found in vertebrates?
18. Describe the stomach of the horse.
19. Give the structure of the small intestine of the sheep.
20. State what you know about the respiratory apparatus of the swan.

EQUINE ANATOMY.

1. Give the classification of bones and peculiarities of each.
2. Describe the scapula, humerus and femur.
3. Describe a dorsal and cervical vertebra.
4. Describe the os pedis.
5. Give ligaments of the humero-radial and carpal, and the first phalangeal articulation.
6. Name ligaments of coxo-femoral, femoro-tibial and tarsal articulations.
7. Describe the ligamentum nuchae.

8. Give the origin and insertion of the muscles having an attachment on the scapula.
9. Give the origin and insertion of the extensors and flexor of the antebrachial region.
10. Name the muscles that have an attachment on the femur.
11. Name the muscles having an origin on the tibia.
12. Give the collateral and terminal branches of the common aorta.
13. Give the collateral and terminal branches of the posterior aorta and where distributed.
14. Give the anatomy of the alimentary canal.
15. What are the layers of the peritoneum and the folds of the same?
16. Give the circulation of kidney.
17. Give the circulation of liver.
18. Give the divisions of the brain and the tunics of the brain and spinal cord.
19. What do the cranial nerves supply and their functions?
20. Describe the cartilages of the larynx.

PHYSIOLOGY.

1. Name the most important proximate principles of the body, and assign them to their classes.
2. What is the blood composed of, and what are its uses?
3. Describe the course of the blood through the circulatory system, and give the causes of its flow.
4. What is the effect upon the heart of cutting the pneumo-gastric nerve?
5. What is the vaso-motor system of nerves?
6. What changes take place in the air in respiration?
7. Name the different digestive fluids which the food meets in passing through the alimentary canal.
8. Give the special function of each of these digestive juices.
9. What are the functions of the liver?
10. Name the secretions that are found in the body.
11. What is the difference between a secretion and an excretion?
12. What are the chief organs of excretion?
13. Give the principal ingredients of the urine.
14. How does the food that has been digested in the stomach and intestines, get into the blood?
15. What substances make up the different kinds of food?
16. What is the nutritive ratio?
17. What is the proper diet for a work horse?
18. What is the nutritive ratio in that diet?
19. What are the functions of the spinal cord?
20. What is a motor, and what a sensory nerve?

CHEMISTRY.

1. What is oxygen? Where does it occur and what are its functions in nature?

2. How is hydrogen prepared? And what are its properties? Mention important compound with oxygen.
3. Give the composition of water by weight and volume.
4. Name the common impurities found in drinking waters, and give their origin and influence on the health of animals using it.
5. Mention different kinds of waters found in nature.
6. What is a mineral water?
7. What is a saline?
8. What waters are most liable to contamination?
9. How may water be purified?
10. What renders water unfit for washing?
11. What is nitrogen? Where found, and what are its properties?
12. Tell difference between a mixture and chemical compound.
13. What is the composition of the atmosphere in full?
14. Explain effect of moisture on health.
15. Mention important compounds of nitrogen with hydrogen.
16. What is CO_2 ? How does it occur, and what important part does it play in nature?
17. Name the important mineral acids and their properties.
18. How can you prepare chlorine, and what are its properties?
19. Give formula for *laughing gas*, and how prepared.
20. Write formula for following compounds: *Nitric acid, sulphuric acid, hydrochloric acid, carbonic acid, ammonia, salt, lime.*

SHOEING.

1. Give a description of the different parts of which a horse's foot is composed.
2. What are the primary causes in producing the different forms of hoofs?
3. What relation does the form of the hoof bear to the diseases to which the foot is subject?
4. Is contraction of the hoof a cause or a result of disease?
5. Name some of the frequent causes of contraction.
6. How should the horse's feet be tested for soundness?
7. What do we include under the term shoeing?
8. What relation does good shoeing bear to the health of the horse?
9. What relation does shoeing bear to diseases of bones, joints, ligaments, tendons, and muscles?
10. How may shoeing be an exciting cause of ringbone, spavin, laminitis, corns, quarter-cracks, quittors, etc.?
11. What relation does shoeing bear to the gait and speed of the horse?
12. How can shoes be applied to prevent structural changes from laminitis?
13. How shall the horse's feet be treated during sickness or idleness?
14. What popular methods are to be condemned in prevention of interfering and overreaching?
15. How may contraction of the hoof be prevented and cured?

16. How should the spavined horse be shod?
17. How should the wide, flat foot be shod?
18. How should the foot with navicular disease be shod?
19. How should the foot afflicted with corns be shod?
20. What constitutes good shoeing?

MATERIA MEDICA AND THERAPEUTICS.

1. Define and illustrate general remedies and local remedies.
2. What is the best purgative for a horse, for a cow, for a sheep, for a dog? Which the best form for the exhibition and dose of each?
3. Mention names of four cardiac sedatives. Give the officinal preparations of each, and the dose of each for a horse.
4. Write names of four cardiac stimulants. Give the officinal preparations of each, and dose.
5. What are the therapeutic properties of belladonna and the preparations?
6. What are the peculiar properties of digitalis?
7. Which are the acid tonics, and what is the most marked therapeutic action of each?
8. Which of the iron tonics has least astringency?
9. What are the substances which enter into the composition of tincture of iron?
10. What is meant by the term "active principle" as applied to drugs?
11. What are the active principles of opium?
12. In how many ways can medicine be exhibited or administered?
13. Write the names of three hydrogogue cathartics and three hydrogogue diuretics.
14. What are the officinal preparations, doses, and therapeutical properties of antimony?
15. What remedies are indicated for the cure of tetanus?
16. What effect has combination on drastic cathartics?
17. What are the officinal preparations of ammonia, and how should they be exhibited?
18. What is an alterative medicine?
19. What are the therapeutic properties of nitrate of potash?
20. What is the composition of the compound spirits of ether?

COMPARATIVE PATHOLOGY.

1. Mention the morbid appearances that are most noteworthy in nasal glanders.
2. What organs are chiefly involved in hog cholera (swine plague); describe the nature of the changes.
3. Give the cause of the "rot" in sheep, and explain how the symptoms are produced.
4. The *trichina spiralis*; which of the lower animals does it infest?
5. How can trichinosis be diagnosticated in the human subject?
6. How may the presence of albumen in the urine be determined?

7. Describe the excretory apparatus in a horse's kidney.
8. What is the naked eye appearance of the lung in the contagious pleuro-pneumonia of cattle?
9. What is an haversian system?
10. What are the morbid changes in farcy or external glanders?
11. What are the lesions of foot and mouth disease in cattle?
12. Mention the supposed cause of anthrax, and some of the names under which the disease is sometimes known.
13. What is the difference in structure between the striped and the unstriped muscular fibre?
14. What is embolism?
15. What are the characteristic differences between the red and the white corpuscles in mammalian blood?
16. The difference in type between carcinoma and sarcoma.
17. What is fatty degeneration; calcification?
18. Give the minute anatomy of an hepatic lobule or acinus.
19. How are aneurisms produced?
20. Give the structure of a medullated nerve.

SURGERY.

1. Give the difference between anæmia and phethora.
2. When does determination or active congestion play an important part in surgery?
3. Give a complete definition for inflammation, the pathological changes, the modes of termination, the products, symptoms and treatment for the same.
4. How are inflammatory effusions divided, and which are of surgical importance?
5. What is suppuration?
6. What is an abscess, with the symptoms and the treatment of the same?
7. Give a definition for ulceration, and the points to be observed in diagnosing an ulcer.
8. What is a sinus, with the best methods for treating the same?
9. What is the difference between laudible and ichorous pus?
10. What is a quittor, and how best treated?
11. Give the leading points of difference between a healthy and an indolent ulcer?
12. What is a wound, and the methods by which it is permanently closed?
13. Give the various principles that are to be carried out in treating wounds.
14. How would you tell an arterial from a venous hemorrhage, and under what circumstances might an arterial be taken for a venous?
15. What are the surgical means for closing wounds?
16. What are the various methods for arresting arterial hemorrhage?
17. What bone in the horse is the most frequently dislocated, and how would you treat the case?

18. What is a fracture?
19. What are the signs, symptoms, and best methods for treating fractures?
20. Give the causes, pathology, symptoms, modes of termination, prognosis, and treatment of acute synovitis, and state which joints in the horse are most frequently affected.

EQUINE PRACTICE.

1. Mention seven diseases which may produce a discharge from the nostrils.
2. Number of pulsations and respirations per minute in health—normal temperature of body.
3. Mention six separate and distinct causes of anaemia.
4. Symptoms of febra pyogenica.
5. What are the most frequent complications of febra pyogenica?
6. What are the diagnostic symptoms of the second or exudative stage of pneumonia?
7. What are the diagnostic symptoms of the first stage of pleurisy?
8. Mention four of the most frequent diseases of the digestive organs.
9. Give causes of azoturia.
10. Differential diagnosis between retention of urine and suppression of urine.
11. Mention three diseases of the feet in which the heels are brought to the ground first while in motion.
12. Mention ten diseases of the limbs or feet in which the toe is brought to the ground first while in motion.
13. What is a keratoma?
14. What are the symptoms of rupture of the suspensory ligament.
15. What are symptoms of rupture of the gastrocnemii muscles?
16. Mention five curable simple fractures.
17. What is a spavin?
18. Why does spavin lameness generally precede the development of the bony deposit?
19. Give symptoms of tetanus.
20. What are the causes of retention of urine?

CATTLE AND SHEEP PRACTICE.

1. Define the terms disease and health.
2. Explain term contagious disease, and write names of four contagious diseases.
3. What is the domain of veterinary sanitary science?
4. Define sporadic, enzootic and epizootic diseases, and give an illustration of each.
5. What is meant by the period of incubation in diseases?
6. Define rumenotomy, and describe the operation for it.
7. Give the differentiation of sporadic pleuro-pneumonia and pleuro-pneumonia contagiosa.
8. Classify hog cholera, give symptoms and treatment.
9. Define epizootic aptha, and give symptoms.

The Claims of Comparative Medicine.

Extract from Editorial in MEDICAL RECORD, October 9, 1880.

To young men, ambitious of earning their living in scientific pursuits, the facts given elsewhere concerning the condition of comparative medicine should be read with attention. We are told by Prof. Bates that here is one branch of science which offers a rich field for study, and, furthermore, that it is sure to bring substantial pecuniary rewards in a short time. There is, he says, a deplorable lack of knowledge and skill in most of those who now practice among animals, and the opportunities for helping the removal of such deficiencies are very great. There are now not enough veterinary surgeons to furnish the cities of this country with one apiece. There is a constant demand upon the veterinary colleges of this city for skilful practitioners, and those who have been sent out thus far have at once stepped into very lucrative practices.

It seems to be the aim, and it is a laudable one, of the teachers of this branch of medicine, to make the education of their pupils broad and comprehensive. It is desired to have the graduate not only a horse-doctor or a cow-doctor, but a man qualified to give medical advice upon the diseases of all domestic animals; to make him, in fact, a doctor of comparative medicine. Such an ambition is to be commended, not only because it will enlarge the scientific knowledge and elevate the status of the veterinary practitioner, but because it answers a practical need. Of the two billions of dollars which the domestic animals of this country represent, only three-fourths is in horses. The amount of money annually lost by a single disease affecting hogs, is estimated at \$20,000,000. Pleuro-pneumonia also causes great losses among cattle, and it is asserted that if the disease should get among the herds of the West, the price of beef in the East would go up to five or even twenty times its present amount.

Obviously it is worth while, therefore, both to the State and to large stock owners, that there should be men acquainted with these diseases and competent to advise regarding them.

*Extract from Address Delivered by Prof. E. S. BATES at the Opening of the
Columbia Veterinary College, New York City.*

In the whole United States there are not enough educated veterinarians to supply even one to each large city, to say nothing of the country districts. From every part of the country he, as dean of the college, had received letters asking for good veterinary surgeons, and saying that there were none within 50 miles, none within 100 miles, or none within the State. The graduates of the Columbia Veterinary College had, without exception, secured at once lucrative practices, with incomes amounting, even in the first year or two, to \$2,000 and over. The same was doubtless true of other college graduates. The total value of the stock of the country is estimated at \$2,000,000,000. Yet the diseases which so often depreciate the value of this stock are, for the most part, in the hands of uneducated men.

THE JOURNAL

[Formerly "ARCHIVES"]

OF

Comparative Medicine and Surgery

A Quarterly Journal, devoted to the diseases of Animals.

THE JOURNAL OF COMPARATIVE MEDICINE AND SURGERY enters upon its second year with a greatly enlarged subscription list, and with the prospect of a success much beyond its anticipations. No especial change will be made in its scope, or in the character of its contents. It will devote itself to everything that relates to the diseases of the domesticated and other animals.

Original articles will appear from the best authorities in the country. The various interests of those who own domesticated animals will be discussed. There will be a record of all the advances of importance in veterinary science and comparative medicine.

It is intended that the JOURNAL shall be of such a character that it will be instructive to the physician on account of the light which comparative medicine throws upon human diseases. It will contain much that would interest naturalists. It will appeal especially to owners and breeders of stock and to veterinary surgeons.

Each number will consist, as heretofore, of about seventy pages, and will be printed on fine paper, in large and small type, and illustrated.

The JOURNAL is to be issued at present as a quarterly, but should the circulation continue to increase at the rate it is now doing, it will be issued more frequently.

The JOURNAL occupies an entirely new field in this country, and should receive the support of all interested in the care and treatment of our domestic animals, in natural science, or the progress of scientific medicine.

Advertisers will find the JOURNAL an excellent medium for reaching veterinarians and stock-breeders, as well as naturalists and human physicians.

Terms, \$2.00 per annum; single copies, 50 cents. Specimen copies will be sent on application.

Those wishing to subscribe will send the money in the form of check, draft, or money order, addressed to

Editor of Journal of Comparative Medicine,
Care of W. L. HYDE & Co., *Publishers*,

22 Union Square, New York City, N. Y.

